

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

Claims 11-22 are all the claims pending in the application. Claims 20-22 are newly added.

Claims 11-13, and 17-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Sharma et al. (U. S. Patent No. 5,717,795). Applicants respectfully traverse the rejection.

The claimed invention differs from the prior art in many aspects. First, the prior art fails to teach a node as claimed and described in claim 11. In particular, Sharma fails to teach or suggest the “extracting means” as recited in claim 11. Claim 11 recites:

A communications node of a backed up ring optical telecommunications network, comprising:

an optical fiber section for transporting optical signals, and

extraction means for extracting optical signals transported by the fiber section,

wherein, to allow the use of the same section of fiber in one direction when the network is in a normal transmission state and in the opposite direction when the network is in a backed up transmission state, the extraction means are of power coupler type and are bidirectional,

and wherein the communications node further comprises:

switching means for directing optical signals extracted by the extraction means, and

control means for detecting the transmission state of the network and controlling the switching means as a function of that state.

Instead, Sharma's system relates to an optical wavelength division multiplexed network system based on an optical fiber ring. The network system is a network in which different transmission wavelengths and reception wavelengths are assigned to the respective nodes. See col. 3 lines et seq. Figures 8-10 depict the construction of the nodes. "The nodes includes a modulation direction controller 617 in addition to the ADM (add/drop multiplexer) 611, optical receivers 612, 624, modulator 613, optical coupler 615, 616." See col. 6, line 66 to col. 7, line 2. In Sharma, each of the nodes includes an ADM for extracting light of a particular wavelength among the lights of a plurality wavelength. In contrast, the claimed invention recites an extracting means which are of a power coupler type to extract optical signals transported by the fiber section.

Second, Sharma does not teach or suggest a **"control means for detecting the transmission state of the network and controlling the switching means as a function of that state"** as recited in claim 11.

By contrast, Sharma teaches in figure 8, element 617, a modulation direction controller, which "is needed when using a traveling wave type modulator to control the transmission direction of the electrical modulation signal to be the same as the direction of the light." The modulation direction controller disclosed in figure 8 does not "detect the transmission state of the network and controlling the switching means as a function of that state" as recited in claim 11.

Instead Sharma teaches:

Optical switches 619 and 6110, 6112 and 6113 are located between the ADM and the main trunk line 81...See fig. 8. If the optical switch 6110 is switched to a switching position on the optical circulator 618 side, the light added to the main trunk line is transmitted to the optical circulator 618 and further transmitted to the optical circulator 6111 via the bypass trunk line 6114...sub-networks A, B can be formed simply by operating the optical switch to effect the output light in the nodes 64, 65 when the main trunk line is cut off or damaged.¹

Further, Sharma teaches “the switch control operation can be monitored and controlled by use of a network management system containing the communication protocol in each node.”

See col. 8, lines 47-51. This is in stark contrast with the claimed invention.

For at least these reasons discussed above, Applicants respectfully submit that Sharma would not have anticipated the claimed invention as described in claim 11 and respectfully request the withdrawal to the rejection.

All of the independent claims 13, 14, and 17 recite the limitation of “control means for detecting the transmission state of the network and controlling the switching means as a function of that state.” Thus, all the claims are patentable over Sharma for the same reasons set forth regarding claim 11 above. Claims 12, 15, 16, 18 and 19 are also

¹ See col. 6, line 66 to col. 7, line 36

patentable by virtue of their dependency on the patentable independent claims.

Accordingly, Applicants respectfully solicit the allowance of these claims.

Claims 14-16 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Sharma. Applicants respectfully traverse this rejection.

Applicants respectfully submit that claim 14 is patentable for the reasons set forth above. In addition, the Examiner correctly concedes that “Sharma does not disclose an amplifier means for each fiber section inserted into the associated fiber section to amplify optical signals...” nonetheless, the Examiner asserts that “ [s]ince optical amplifier is well known for amplifying an optical signal and since it is also well recognized that signal degrades as it travel [sic]down through the transmission path, it would have been obvious to an artisan at the time the invention was made to include the well known optical amplifier in the node of Sharma in order to restore the signal strength to a desirable level to obtain good signals quality.”

Applicants respectfully submit that although the use of and optical amplifier may be well known for the purpose indicated by the Examiner, the claim would still not have rendered obvious. Applicants respectfully submit that Sharma does not teach an amplified communications node as described in claim 14. In particular, Sharma does explicitly teach or suggest a “control means for detecting the transmission state of the network and controlling the switching means as a function of that state.” Therefore, Applicants respectfully request that the rejection be withdrawn.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/502,353

Attorney Docket No.: Q82508

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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